

KB/A™ 60

KEYBOARD/ACOUSTIC
AMPLIFIER



OPERATING GUIDE





Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock – DO NOT OPEN!

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito de alertar al usuario de la presencia de "(voltaje) peligroso" que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.

PRECAUCION: Riesgo de corrientazo – No abra.

PRECAUCION: Para disminuir el riesgo de corrientazo, no abra la cubierta. No hay piezas adentro que el usuario pueda reparar. Deje todo mantenimiento a los técnicos calificados.

ADVERTENCIA: Para evitar corrientazos o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé pour indiquer à l'utilisateur la présence à l'intérieur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la littérature accompagnant le produit.

ATTENTION: Risques de choc électrique – NE PAS OUVRIR!

ATTENTION: Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.

AVERTISSEMENT: Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



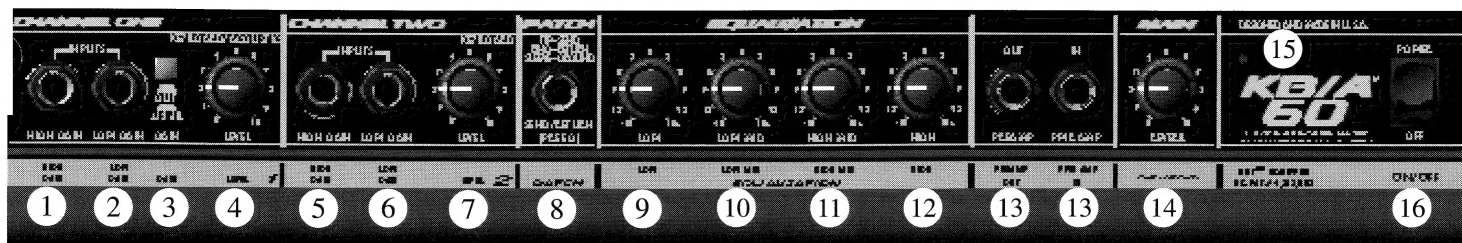
Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

VORSICHT: Risiko – Elektrischer Schlag! Nicht öffnen!

VORSICHT: Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

ACHTUNG: Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

ENGLISH



Thank you for selecting the KB/A™ 60 Keyboard Amplification System! The KB/A 60 is the perfect keyboard/acoustic system for applications where excellent sound and portability in a lighter package are needed. Plus, with 50 watts RMS available, the KB/A 60 will handle just about any application. Power output is tightly controlled via DDT™ circuitry which virtually eliminates amplifier clipping. Two channels with high and low gain inputs (1/4" jacks) are provided along with a four-band equalization section that is global for both channels.

Channel one offers a gain switch that allows the input to be boosted 12dB. The Send/Return (pre-EQ) jack on the front panel is available for adding external effects or processor devices to the signal chain. Power Amp In and Preamp Out jacks are also provided on the front panel. A master reverb control allows you to dial in ambiance as needed. Rear panel features include the all-important headphone jack and three position ground lift switch.

Like all of the KB/A series, the KB/A 60 is built for the road. A tough black covering borrowed from the Transtube® series is provided along with heavy-duty corners. A handle is available at the top of the unit to make transporting it a breeze, and heavy-duty rubber feet are provided to protect the bottom.

The amp is for real...it's all there...excellent sound, portability, roadworthy design, and unmatched reliability. And, don't forget...with every KB/A series amplifier, you get Peavey's excellent one-year warranty and the best in customer service from Peavey's award winning repair and service department.

CHANNEL ONE

1. HIGH GAIN INPUT

Used for instrument and microphones with a low level output. It is 6dB louder than the Low Gain input.

2. LOW GAIN INPUT

Provided for instruments that have high outputs, which can result in overdriving (distorting) the High Gain input. If both inputs are used simultaneously, the output levels are the same (both are Low Gain).

3. GAIN SWITCH

Boosts the gain of channel one by 12dB. Depress to the "in" position to activate.

4. LEVEL

Controls the Channel One 1/4" phone jack input level.

CHANNEL TWO

5. HIGH GAIN INPUT

Used for instruments with a low level output. It is 6dB louder than the Low Gain input.

6. LOW GAIN INPUT

Provided for instruments that have high outputs, which can result in overdriving (distorting) the High Gain input. If both inputs are used simultaneously, the output levels are the same (both are Low Gain).

7. LEVEL

Controls the Channel Two 1/4" phone jack input level.

PRE EQ PATCH

8. SEND/RETURN JACK

A stereo out/in jack allows the uses of various auxiliary units (chorus, flanging, tape/digital/analog delays, equalizers, etc.) in line before the Equalization section. To utilize this system, a stereo plug (tip/ring/sleeve) to a "Y" cord must be used. The tip portion of the 1/4" stereo jack serves as the signal send (output while the ring portion will return the processed signal to the system. The sleeve portion serves as the ground.

Since this is a stereo jack configuration, the first click on the jack may be used as a pre EQ output with a mono 1/4" plug if desired. This first click will not disturb the signal flow to the remainder of the system as it is fed into the EQ section. NOTE: IF THE SECOND CLICK OF THE OUT/IN JACK IS UTILIZED WITHOUT RETURNING ANY SIGNAL TO THE SYSTEM FROM AN EFFECTS DEVICE THE REMAINING PREAMP FUNCTIONS WILL BE DISABLED.

EQUALIZATION

9. LOW EQ

An active tone control (shelving type, +/- 15dB) that varies the low frequency range. CAUTION: Excessive low frequency boost causes greater power consumption and increases possibility of speaker damage.

10. LOW MID EQ

An active tone control (peak/notch, +/- 12dB) that varies the low/mid frequency range.

11. HIGH MID EQ

An active tone control (peak/notch, +/- 12dB) that varies the high/mid frequency range.

12. HIGH EQ

An active tone control (shelving type, +/- 15dB) that varies the high frequency range.

13. PREAMP OUT/POWER AMP IN JACKS

These jacks are provided for in-line patching of effects devices. To patch an effects unit, connect the Preamp Output to the input of the device. Next, connect the output of the device to the Power Amp Input (high-quality shielded cables must be used for these connections). The Preamp Output can also be used to route the amplified signal to a mixing console, tape recorder, etc. Connect the

Preamp Output, using a shielded cable, to an input of the tape recorder, mixer, etc. This patch does not affect the operation of the amplifier. NOTE: The preamp output level is approximately 1 volt RMS and is of relatively low impedance (600 ohms). Any effects device used in this effects loop must be capable of receiving 1 volt input and providing 1 volt output in order to properly drive the power amp. The Power Amp Input has an internal switch which disconnects the internal preamp. This would allow an external mixer to be routed directly to the power amp.

MASTER

14. MAIN REVERB CONTROL

The main reverb control determines the desired amount of reverberation from the internal reverb system. Clockwise rotation increase the reverb effect and counter-clockwise decreases the effect.

15. PILOT LED (RED)

The red pilot LED will illuminate when power is turn on.

16. POWER SWITCH

Depress the switch to the “on” position. The red pilot light (LED) will illuminate indicating power is being supplied to the unit.



BACK PANEL



17. LINE CORD (120V products only)

For your safety, we have incorporated a 3-wire line (mains) cable with proper grounding facilities. It is not advisable to remove the ground pin under any circumstances. If it is necessary to use the equipment without proper grounding facilities, suitable grounding adapters should be used. Less noise and greatly reduced shock hazard exists when the unit is operated with the proper grounded receptacles.

18. GROUND SWITCH

Three position rocker-type switch which, in most applications, should be operated in its center or zero position. There may be some situations when audible hum and/or noise will come from the loudspeaker. If this situation arises, position the ground switch to either positive or negative (+or-) or until the noise is minimized. NOTE: Should the noise problem continue, consult your Authorized Peavey Dealer, the Peavey Factory, or a qualified service technician. THE GROUND SWITCH IS NOT FUNCTIONAL ON 220/240 VOLT MODELS.

19. HEADPHONE JACK

A stereo jack is provided in order to allow the signal to flow to each side of any stereo headset. When a stereo headset is plugged in, the internal speaker is automatically turned off so that a totally private rehearsal situation can be accomplished. NOTE: The headphone system will not work with headsets that have a mono phone plug.

SPECIFICATIONS

PREAMP SECTION

The following preamp specs are measured at 1 kHz with the master EQ set flat at 0 dB, all gain switches in the out position, the main reverb at 0, nominal signal levels are with channel level controls set at 5, minimum level are with channel level controls set at 10.

HIGH GAIN INPUTS

Input impedance: 220k ohms
Nominal input level: -26 dBV, 50mV RMS
Minimum input level: -40 dBV, 10 mV RMS
Maximum input level: +10 dBV, 3V RMS

LOW GAIN INPUTS

Input impedance, 44k ohms
Nominal input level: -20 dBV, 100 mV RMS
Minimum input level: -40 dBV, 10 mV RMS
Maximum input level: +10 dBV, 3V RMS

PRE EQ PATCH : (STEREO JACK TIP)

Function: Low level effects send
Load impedance: 10k ohms or greater
Nominal output: -20 dBV, 100 mV RMS

PRE EQ PATCH: (STEREO JACK RING)

Function: Low level effects return
Impedance: High Z, 100k ohms
Input level: -20 dBV, 100 mV RMS

(Switching stereo jack providing patch output to patch input connection when not used)

PREAMP OUTPUT:

Function: High level post EQ signal send
Load impedance: 1K ohms or greater
Nominal output: 0 dBV, 1V RMS
Maximum output: 16 dBV, 6.3V RMS

POWER AMP INPUT:

Function: High level post EQ signal return
Impedance: High Z, 22 k ohms
Nominal input: 0 dBV, 1V RMS
(Switching jack providing preamp output to power amp input connection when not used)

HEADPHONE OUTPUT: (STEREO JACK)

Load impedance: 4 ohms or greater
Nominal output: 100 mW
(Switching jack which will disconnect internal speaker

when headphone plug is inserted)

The following specs measured at nominal setting, all phone jack inputs terminated with 47k ohms.

FREQUENCY RESPONSE

(Channel input/preamp output at 1V RMS level)
+0, -3 dB, 60Hz to 20kHz

SYSTEM DISTORTION

(Channel in/preamp out, 60 Hz-20kHz at 1V RMS)
Less than .05% THD, typically below .01%

PREAMP HUM AND NOISE

-85 dBV

CHANNEL EQUALIZATION

+/- 15 dB at 80Hz and 10kHz, shelving
+/- 12 dB at 400Hz and 2kHz, peak/notch

POWER AMPLIFIER SECTION

RATED POWER AND LOAD

50W RMS into 8 ohms with DDT compression

POWER AT CLIPPING (TYPICALLY)

(1kHz, 120V AC line)
50W RMS into 8 ohms at 1% THD
55W RMS into 8 ohms at 5% THD

FREQUENCY RESPONSE

+0,-2dB, 30Hz to 20 kHz, at 40W RMS into 8 ohms

TOTAL HARMONIC DISTORTION

Less than 0.2%, 100mW to 40W RMS, 30 Hz to 10 kHz, 8 ohms, Typically below 0.1%

DDT DYNAMIC RANGE

Greater than 20 dB

DDT MAXIMUM THD

Below 0.5% THD for 6 dB overload
Below 1% THD for 16 dB overload

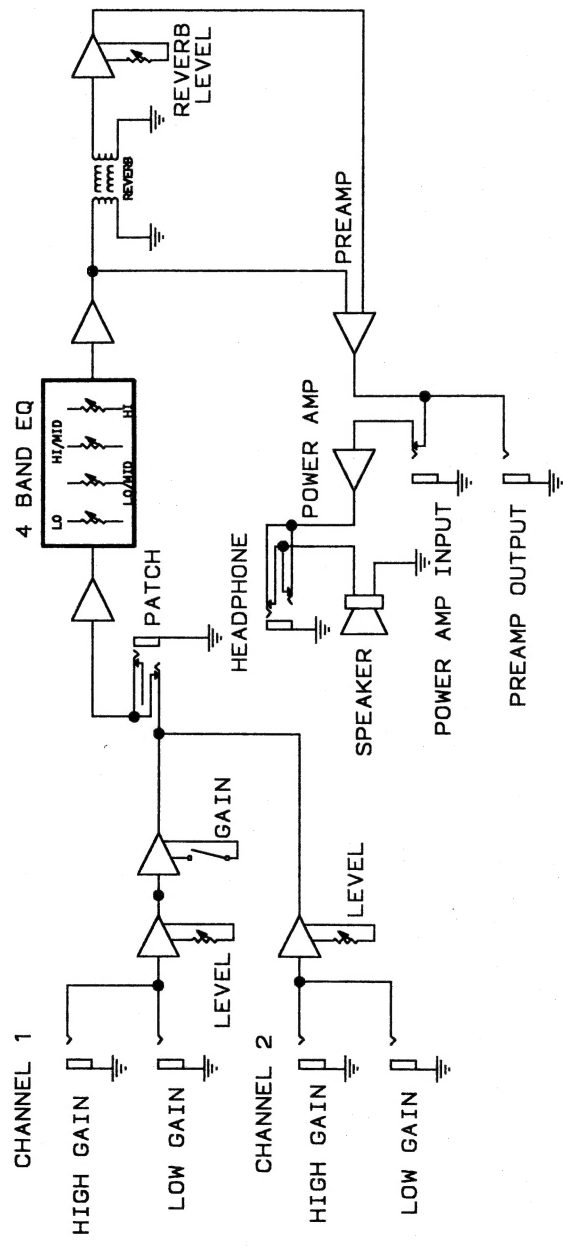
HUM & NOISE

Greater than 90 dB below rated power

POWER CONSUMPTION (DOMESTIC)

150W at 120V AC, 50/60 Hz

PEAVEY ELECTRONICS CORP.			
1115 S. HIGHWAY 111			
MERIDIAN, MISSISSIPPI 39301			
TITLE			
KB/A 60 BLOCK DNG			
SIZE	CODE	NUMBER	REV
C		98810470	A
DATE	17-JAN-95	SHEET	1 OF 1



THIS LIMITED WARRANTY VALID ONLY WHEN PURCHASED AND REGISTERED IN THE UNITED STATES OR CANADA. ALL EXPORTED PRODUCTS ARE SUBJECT TO WARRANTY AND SERVICES TO BE SPECIFIED AND PROVIDED BY THE AUTHORIZED DISTRIBUTOR FOR EACH COUNTRY.
Ces clauses de garantie ne sont valables qu'aux Etats-Unis et au Canada. Dans tous les autres pays, les clauses de garantie et de maintenance sont fixées par le distributeur national et assurées par lui selon la législation en vigueur. •• Diese Garantie ist nur in den USA und Kanada gültig. Alle Export-Produkte sind der Garantie und dem Service des Importeurs des jeweiligen Landes unterworfen. •• Esta garantía es válida solamente cuando el producto es comprado en E.U. continentales o en Canada. Todos los productos que sean comprados en el extranjero, están sujetos a las garantías y servicio que cada distribuidor autorizado determine y ofrezca en los diferentes países.

**PEAVEY ONE-YEAR LIMITED
WARRANTY/REMEDY**

PEAVEY ELECTRONICS CORPORATION ("PEAVEY") warrants this product, EXCEPT for covers, footswitches, patchcords, tubes and meters, to be free from defects in material and workmanship for a period of one (1) year from date of purchase, PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is subject to the conditions, exclusions, and limitations hereinafter set forth:

PEAVEY 90-DAY LIMITED WARRANTY ON TUBES AND METERS

If this product contains tubes or meters, Peavey warrants the tubes or meters contained in the product to be free from defects in material and workmanship for a period of ninety (90) days from date of purchase; PROVIDED, however, that this limited warranty is extended only to the original retail purchaser and is also subject to the conditions, exclusions, and limitations hereinafter set forth.

CONDITIONS, EXCLUSIONS, AND LIMITATIONS OF LIMITED WARRANTIES

These limited warranties shall be void and of no effect, if:

- a. The first purchase of the product is for the purpose of resale; or
- b. The original retail purchase is not made from an AUTHORIZED PEAVEY DEALER; or
- c. The product has been damaged by accident or unreasonable use, neglect, improper service or maintenance, or other causes not arising out of defects in material or workmanship; or
- d. The serial number affixed to the product is altered, defaced, or removed.

In the event of a defect in material and/or workmanship covered by this limited warranty, Peavey will:

- a. In the case of tubes or meters, replace the defective component without charge.
- b. In other covered cases (i.e., cases involving anything other than covers, footswitches, patchcords, tubes or meters), repair the defect in material or workmanship or replace the product, at Peavey's option; and provided, however, that, in any case, all costs of shipping, if necessary, are paid by you, the purchaser.

THE WARRANTY REGISTRATION CARD SHOULD BE ACCURATELY COMPLETED AND MAILED TO AND RECEIVED BY PEAVEY WITHIN FOURTEEN (14) DAYS FROM THE DATE OF YOUR PURCHASE.

In order to obtain service under these warranties, you must:

- a. Bring the defective item to any PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER and present therewith the ORIGINAL PROOF OF PURCHASE supplied to you by the AUTHORIZED PEAVEY DEALER in connection with your purchase from him of this product.
If the DEALER or SERVICE CENTER is unable to provide the necessary warranty service you will be directed to the nearest other PEAVEY AUTHORIZED DEALER or AUTHORIZED PEAVEY SERVICE CENTER which can provide such service.

OR

- b. Ship the defective item, prepaid, to:

PEAVEY ELECTRONICS CORPORATION
International Service Center
326 Hwy. 11 & 80 East
Meridian, MS 39301

including therewith a complete, detailed description of the problem, together with a legible copy of the original PROOF OF PURCHASE and a complete return address. Upon Peavey's receipt of these items: If the defect is remedial under these limited warranties and the other terms and conditions expressed herein have been complied with, Peavey will provide the necessary warranty service to repair or replace the product and will return it, FREIGHT COLLECT, to you, the purchaser.

Peavey's liability to the purchaser for damages from any cause whatsoever and regardless of the form of action, including negligence, is limited to the actual damages up to the greater of \$500.00 or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. Such purchase price will be that in effect for the specific product when the cause of action arose. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. Peavey does not assume liability for personal injury or property damage arising out of or caused by a non-Peavey alteration or attachment, nor does Peavey assume any responsibility for damage to interconnected non-Peavey equipment that may result from the normal functioning and maintenance of the Peavey equipment.

UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, ANY INCIDENTAL DAMAGES, OR ANY CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THESE LIMITED WARRANTIES ARE IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE; PROVIDED, HOWEVER, THAT IF THE OTHER TERMS AND CONDITIONS NECESSARY TO THE EXISTENCE OF THE EXPRESSED, LIMITED WARRANTIES, AS HEREINABOVE STATED, HAVE BEEN COMPLIED WITH, IMPLIED WARRANTIES ARE NOT DISCLAIMED DURING THE APPLICABLE ONE-YEAR OR NINETY-DAY PERIOD FROM DATE OF PURCHASE OF THIS PRODUCT.

SOME STATES DO NOT ALLOW LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. THESE LIMITED WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE.

THESE LIMITED WARRANTIES ARE THE ONLY EXPRESSED WARRANTIES ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

In the event of any modification or disclaimer of expressed or implied warranties, or any limitation of remedies, contained herein conflicts with applicable law, then such modification, disclaimer or limitation, as the case may be, shall be deemed to be modified to the extent necessary to comply with such law.

Your remedies for breach of these warranties are limited to those remedies provided herein and Peavey Electronics Corporation gives this limited warranty only with respect to equipment purchased in the United States of America.

INSTRUCTIONS — WARRANTY REGISTRATION CARD

1. Mail the completed WARRANTY REGISTRATION CARD to:

PEAVEY ELECTRONICS CORPORATION
P.O. BOX 2898
Meridian, MS 39302-2898

- a. Keep the PROOF OF PURCHASE. In the event warranty service is required during the warranty period, you will need this document. There will be no identification card issued by Peavey Electronics Corporation.
2. IMPORTANCE OF WARRANTY REGISTRATION CARDS AND NOTIFICATION OF CHANGES OF ADDRESSES:
 - a. Completion and mailing of WARRANTY REGISTRATION CARDS — Should notification become necessary for any condition that may require correction, the REGISTRATION CARD will help ensure that you are contacted and properly notified.
 - b. Notice of address changes — If you move from the address shown on the WARRANTY REGISTRATION CARD, you should notify Peavey of the change of address so as to facilitate your receipt of any bulletins or other forms of notification which may become necessary in connection with any condition that may require dissemination of information or correction.
3. You may contact Peavey directly by telephoning (601) 483-5365.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following:

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.

Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS!



Features and specifications subject to change without notice.